

TO: John Phillips
Senior Engineer

File #03-538.02
U.S. Navy, Naval Base Point Loma (NBPL)

FROM: Paul J. Richter
WRCE

DATE: 28 March 2002

SUBJECT: Response to comments from EHC

++++
On March 14, 2002, the Environmental Health Coalition (EHC) provided the Regional Board with comments regarding tentative Order No. R9-2002-0002, NPDES No. CA0109363, Waste Discharge Requirements for U.S. Navy, Naval Base Point Loma, San Diego County (tentative Order). We understand that the EHC may submit additional comments at a later date.

Because this memorandum recommends some changes to the tentative Order dated February 20, 2002, this memorandum will be attached to the *Fact Sheet* for the tentative Order. A triple-highlighted asterisk (***) identifies the recommended changes to the tentative Order in this memorandum.

The proposed changes to the tentative Order are listed below and are repeated in the response to the comments section.

***The tentative Order will be changed to require the NBPL to immediately begin a *systems engineering analysis report* for the industrial storm water discharges at the SUBASE. Submittal of the report will be required within 1 year of the adoption of the tentative Order.

***The tentative Order will be changed to specify that the industrial storm water discharge concentrations of copper and zinc at SUBASE be reduce within 2 years of the adoption of the tentative Order.

***The tentative Order will be changed by adding a specification for toxicity and monitoring of the industrial storm water discharges at SUBASE. Within 2 years of the adoption of the tentative Order the SUBASE will be required to comply with the toxicity specification.

***Monitoring for PAH in the industrial storm water discharges will be required in the tentative Order.

***Specifications for the Regional Board's review of the sediment monitoring study will be added to the tentative Order.

***A requirement that PAH be included in the sediment monitoring study will be included in the tentative Order.

***The 2nd sentence in Finding 11 will be deleted.

The Regional Board's responses to the EHC's comments are provided below. The format for the response to comments from EHC corresponds to the format EHC used to present its comments. The EHC comments are not reproduced below, but are included as an attachment to this memorandum.

Response to General Concerns

1. The tentative Order is a separate storm water permit as requested by the USEPA. The tentative Order is comparable to the shipyard permits (Order No. 97-39 and Order No. 97-37) and does require additional specifications and monitoring not included in the General Industrial Storm Water Permit. The tentative Order requires 2 storm events be sampled for chemical analyses and 2 additional storm water events be sampled when a single sample contains copper concentrations greater than 63 µg/L or zinc concentrations greater than 117 µg/L. The shipyard permits required 2 storm events to be sampled for chemical analyses and 1 storm event per year to be sampled for toxicity.

The tentative Order requires a *systems engineering analysis report* for storm water discharges that are identified as having concentrations of copper greater than 63 µg/L or zinc concentrations greater than 117 µg/L for 50% of the samples analyzed during a 2 year period. The data collected from the tentative Order will allow for a comprehensive evaluation of the storm water discharges.

***The tentative Order will be changed to require the NBPL to immediately begin a *systems engineering analysis report* for the industrial storm water discharges at the SUBASE. Submittal of the report will be required within 1 year of the adoption of the tentative Order. ***The tentative Order will

be changed to specify that the industrial storm water discharge concentrations of copper and zinc at SUBASE be reduced within 2 years of the adoption of the tentative Order.

As identified in the Fact Sheet (p. 34), the NBPL storm water discharges with high copper or zinc concentrations are not expected to achieve a toxicity survival rate of 90%. Therefore, the tentative Order requires efforts to reduce copper and zinc concentrations rather than to monitor for toxicity.

2. See response above. Industrial storm water discharges at SUBASE will need immediate evaluation and concentrations of copper and zinc will need to be significantly reduced within 2 years of the adoption of the tentative Order. ***The tentative Order will be changed by adding a specification for toxicity and monitoring of the industrial storm water discharges at SUBASE. Within 2 years of the adoption of the tentative Order the SUBASE will be required to comply with the toxicity specification.
3. The discharge limits of 63 µg/L for copper and 117 µg/L for zinc are directly from the USEPA Multi-Sector permit benchmark. The USEPA went through a public review process when adopting its Multi-Sector permit. The Multi-Sector benchmark values were derived for discharges from a variety of industrial activities. The nearest copper impaired water body is located at the *Shelter Island Yacht Basin*.
4. The Regional Board records for the NBPL area was in the 303(d) list developed in 1998 and the draft 303(d) list for 2002. The impairment of the benthic community contamination at the SUBASE is identified in the Fact Sheet. The benthic impairment is identified as being caused by elevated concentrations of Polynuclear Aromatic Hydrocarbons (PAH). ***Monitoring for PAH in the industrial storm water discharges will be required in the tentative Order.
5. See the response below in *Radiation* section. The tentative Order includes the Basin Plan requirements for radioactivity.
6. Receiving water monitoring is not necessary because the discharges identified in the report of waste discharge are either intermittent, storm water, or low volume without significant potential to impact water quality such as dolphin pool discharges.

7. Standard Regional Board practices have been for the discharger to develop a sediment monitoring study. The NBPL is required to develop a sediment monitoring study. ***Specifications for the Regional Board's review of the sediment monitoring study will be added to the tentative Order. ***A requirement that PAH be included in the sediment monitoring study will be included in the tentative Order.
8. Discharges of wastes from vessels under repair in the floating drydock, ARCO, are prohibited in the tentative Order. The NBPL has not discharged wastes from the ARCO for a number of years. The wastes are diverted to the sanitary sewer system.
9. Specifications and monitoring were developed according to the discharges identified at the NBPL.

Response to Improper Reliance on the General Industrial Storm Water Permit (Order 97-03) to regulate Submarine Base discharges

As noted in response 1 to the *General Concerns* of EHC, the storm water requirements for the tentative Order are more stringent than the shipyard permit or the General Industrial Storm Water Permit.

1. The storm water requirements are different than the shipyards but the requirements are not reduced. The tentative Order requires accelerated monitoring when significant concentrations of copper or zinc are measured in the storm water discharge. The NBPL must implement measures to reduce concentrations of copper and zinc in its storm water discharges. The basis for the threat to water quality and complexity rating is provided in the Fact Sheet (p. 36).
2. The tentative Order requires the NBPL to evaluate and respond to high concentration of copper or zinc in its storm water discharges. The tentative Order requires the Navy to develop a *systems engineering analysis report* when the copper or zinc concentrations are higher than 63 µg/L for copper or 117 µg/L for zinc.

From the data available in the NBPL's industrial storm water monitoring *annual reports* the concentrations of other chemicals such as lead, and PAH were not identified as being a significant threat to water quality. The tentative Order requires analysis and review of the industrial storm water monitoring data. The NBPL is required to *submit tabular and*

graphical data containing the cumulative sampling analyses data collected for the storm water monitoring program. The data for the first year shall contain available data collected pursuant to the monitoring conducted for the General Industrial Storm Water Permit.

The monitoring and reporting required by the tentative Order will provide the Navy, the Regional Board, and the public with sufficient data to evaluate the industrial storm water discharges.

2. See response above. With the adoption of the tentative Order the NBPL is required to respond to high concentrations of copper and zinc. The tentative Order is different from the General Industrial Storm Water Permit because the tentative Order requires a response from the NBPL and if the response does not lower the concentrations the NBPL is to implement an engineered response.
3. See response above. Compliance with the tentative Order may be accomplished by means other than diversion. The NBPL has the option to divert if they choose to use that method to comply with the tentative Order.
4. The NBPL is required to conduct accelerated monitoring when concentrations of copper or zinc in the industrial storm water discharges are significant.

Response to RADIATION

Pursuant to the Radiological Survey of Naval Facilities on San Diego Bay, EPA-402-R-98-011, there have been no increases in radioactivity causing significant population exposure or contamination of the environment.

Reportedly the Naval Nuclear Propulsion Program produces an annual report titled *Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support Facilities*. The reports are prepared for the U.S. Congress. When developing the tentative Order the Regional Board reviewed reports from 1997, 1998, and 1999. The Basin Plan specifications are included in the tentative Order.

The 9 comments regarding accidents on nuclear submarines are noted.

Response to SPECIFIC ISSUES

Fact Sheet

1. We are not sure what the comment *waste sites on the base* means. The waste discharges from the NBPL have been identified in the Fact Sheet and in the report of waste discharge (RWD).
2. According to the RWD there are no wastes discharges from the nuclear and radiological work sites at NBPL. As noted previously, submittal of available radioactivity monitoring reports will be required in the tentative Order.
3. See response above.
4. Comment noted. The names of the installation will be spelled in the tentative Order. The Fact Sheet will not be changed.
5. Pursuant to the *Atomic Energy Act*, the Regional Board does not have jurisdictional authority to regulate the discharges of radioactive wastes.
6. Monitoring requirements for PCB in the Utility Vault discharges are included in the tentative Order.
7. The requirements in the permit would apply if the diesel engines were to run continuously. There will be an evaluation of the priority pollutants and if necessary limits for priority pollutants will be developed.
8. Discharges from ships are excluded from NPDES regulations pursuant to 40 CFR 122.3(a). Though the *Unified National Discharge Standards* (UNDS) requirements are not yet finalized, the U.S. Congress has specifically authorized the EPA to regulate various ship discharges.
9. Comment noted.

Tentative Order R9-2002-0002
Findings

1. ***The 2nd sentence in Finding 11 will be deleted. The tentative permit has been changed to include additional discharge specifications and monitoring requirements.
2. Comment noted. Finding 12 will not be removed from the tentative Order.
3. See response above regarding radiation.
4. Additional discharge specifications for toxicity will be added to the tentative Order. The monitoring required in *Discharge Specification B.2* will remain. The information from the *Discharge Specification* is necessary to characterize the potential impacts from the industrial storm water discharges.
5. The tentative Order will not require a diversion of the first flush of industrial storm water. If the industrial storm water discharges exceed 63 ug/L for copper or 117 ug/L for zinc for 50% of the analyses for a 2 year period, the U.S. Navy must develop a *systems engineering analysis report*. The *system engineering analysis report* may include a solution to divert the industrial storm water to the sanitary sewer.
6. Receiving water monitoring will not be added to the tentative Order. The discharges identified in the RWD are intermittent, low volume with low potential threat to water quality, or are industrial storm water runoff. The sediments shall be monitored for metals and PAH. The metals may be considered a conservative pollutant, i.e. a pollutant that does not readily degrade in the environment. The sediment may be considered a sink for metal pollutants from the NBPL, especially the SUBASE facility. Therefore, sediment monitoring is a reasonable technique to evaluate potential impacts from the identified discharges.
7. Dissolved oxygen monitoring will not be included in tentative Order. The discharges have not been identified as containing high levels of matter identified as having a high level of biochemical oxygen demand (BOD). If the discharges do not have a significant BOD, then the dissolved oxygen should not be affected or adversely impacted.
8. Discharges from ships are excluded from NPDES regulations pursuant to 40 CFR 122.3(a). Though the *Unified National*

Discharge Standards (UNDS) requirements are not yet finalized, the U.S. Congress has specifically authorized the EPA to regulate various ship discharges.

9. The conditions and the composition in *Reporting Requirement E.6.b* are required by 40 CFR 122.42.
10. The certification statement is required by 40 CFR 122.22 and will not be changed in the tentative Order.

Response to FUNDAMENTAL PERMIT ISSUES

Comments noted.

Response to Support Removal of Immunity of the U.S. Navy from the Clean Water Act

Comments noted.

REFERENCES

1. Table 4. Combined 1998 and Draft 2002 Section 303(d) Update, March 20, 2002, <http://www.swrcb.ca.gov/rwqcb9>.
2. Radiological Survey of Naval Facilities on San Diego Bay, USEPA, Office of Radiation and Indoor Air, EPA-402-R-98-011, January 1999.
3. Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support Facilities, Report NT-96-1, March 1996, by Naval Nuclear Propulsion Program, Department of the Navy.
4. Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support Facilities, Report NT-96-1, March 1996, by Naval Nuclear Propulsion Program, Department of the Navy.
5. Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support

Facilities, Report NT-97-1, March 1997, by Naval Nuclear Propulsion Program, Department of the Navy.

6. Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support Facilities, Report NT-98-1, February 1998, by Naval Nuclear Propulsion Program, Department of the Navy.
7. Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear Powered Ships and their Support Facilities, Report NT-99-1, March 1999, by Naval Nuclear Propulsion Program, Department of the Navy.
8. The United States Naval Nuclear Propulsion Program, August 1998, Over 114 Million Miles Safely Steamed on Nuclear Power, by U.S. Department of Energy and U.S. Department of Defense